IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: January 14, 2009

Bourges-Waldegg Group Art Unit: 2109

Serial No. 10/636,004 Examiner: Mark Fearer

Filed: August 7, 2003 IBM Corporation

Anne Vachon Dougherty

Title: ELECTRONIC DEVICE, METHOD 3173 Cedar Road

FOR ROUTING AN ELECTRONIC MESSAGE Yorktown Hts, NY 10598

FROM AN ELECTRONIC DEVICE TO AN

OUTPUT UNIT, AND COMPUTER PROGRAM ELEMENT

Board of Patent Appeals and Interferences Alexandria, VA 22313-1450

APPEAL BRIEF (37 CFR 41.37)

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the decision dated July 14, 2008 of the Examiner finally rejecting Claims 1-3, 8-11 and 16-19 in the above-identified patent application, and respectfully request that the Board of Patent Appeals and Interferences consider the arguments presented herein and reverse the Examiner's rejection.

I. REAL PARTY IN INTEREST

The appeal is made on behalf of Assignee,
International Business Machines Corporation, the real party
in interest with respect to the subject patent application.

II. RELATED APPEALS AND INTERFERENCES

There are no pending related appeals or interferences with respect to the subject patent application.

III. STATUS OF CLAIMS

There are eleven (11) claims pending in the subject patent application, numbered 1-3, 8-11 and 16-19. No claims stand allowed. Claims 1-3, 8-11 and 16-19 have been finally rejected. Claims 4-7 and 12-15 have been canceled. A complete copy of the claims involved in the appeal is attached hereto.

IV. STATUS OF AMENDMENTS

There are no unentered amendments filed after final rejection for the application.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention which is the subject of the remaining pending claims is an electronic user device, method, and program storage device for performing a method for retrieving multidimensional data from a database in response to a user query. Independent Claims 1, 9 and 18 recite the method, program storage device and system, respectively.

Independent Claim 1

Independent Claim 1 recites an electronic user device (1 of Fig. 1), comprising a receiving component (GSM interface 11 of Fig. 1; page 9, lines 7-10) for receiving message intended for said user; a plurality of interfaces Wireless interface 161, Audio interface 162 and Infrared

interface 163, Graphical Card interface 164; page 9, lines 1-5) for connecting message rendering output units (public display 2, headphones 3, PDA 4 and Device Display 5; page 9, lines 1-5) to said device, a control unit (Control Unit 12; page 9, line 23) for controlling the routing of messages, said messages being determined to be presented to a user of said device via at least one of said message rendering output units, said control unit being configured for automatically determining at least one of said message rendering output units for routing a message to based on a results of an automatic message classification (page 9, lines 23-28) process wherein said message classification process comprises analysis of said message and dynamic classification of said message based on at least one of content analysis (page 5, lines presentability (page 5, lines 12-22), sender page 5, lines 24-29) and confidentiality level (page 6, lines 1-11), and routing said message (page 10, lines 1-2) to an interface serving said determined message rendering output unit.

Independent Claim 10

Independent Claim 10 recites a method (Fig. 2 and page 7, lines 10-14) for routing an electronic message from an electronic user device (1 of Fig. 1) to a message rendering output unit (public display 2, headphones 3, PDA 4 and Display 5; page 9, lines 1-5), comprising Device automatically controlled steps of automatically determining (step 300 of Fig. 2) at least one of several message rendering output units (page 11, lines 4) based on a result of a message classification process (step 250 of Fig. 2; page 11, lines 4-6 and page 9, lines 23-28), wherein said message classification process comprises analysis of said message and dynamic classification of said message based on at least one of message content analysis (page 5, lines 1-10), presentability (page 5, lines 12-22), sender page 5, lines 24-29) and confidentiality level (page 6, lines 1-11), and initiating said message to be routed (step 400 of Fig. 2; page 7, lines 10-14; page 11, lines 6-7 and page 10, lines 1-2) to said determined message rendering output unit for presenting said message to said user of said electronic user device.

Independent Claim 17

Claim 17 recites a program storage device (page 7, lines 23-25) readable by a digital processing apparatus at electronic user device and having а program of instructions which are tangibly embodied on the storage device and which are executable by the processing apparatus to perform a method (Fig. 2) for routing an electronic message from an electronic user device (1 of Fig. 1) to a message rendering output unit (public display 2, headphones PDA 4 and Device Display 5; page 9, lines 1-5), said method comprising automatically determining (step 300 of Fig. 2) at least one of said message rendering output units (page 11, lines 4) based upon a message classification process (step 250 of Fig. 2; page 11, lines 4-6 and page 9, lines 23-28), wherein said message classification process comprises analysis of said message and dynamic classification of said message based on at least one of content analysis (page 5, lines presentability (page 5, lines 12-22), sender page 5, lines 24-29) and confidentiality level (page 6, lines 1-11), and initiating said message to be routed (step 400 of Fig. 2; page 7, lines 10-14; page 11, lines 6-7 and page 10, lines 1-2) to said determined message rendering output unit for

presenting said message to said user of said electronic user device.

Dependent Claim 9

Claim 9 recites the device of Claim 1 as a portable device (page 7, lines 5-8)

Dependent Claim 2

Claim 2 recites the device of Claim 1 and additionally recites a stored look-up table (14 of Fig. 1; page 10, lines 1-14) with confidentiality classification levels being allocated to message rendering output units (page 4, lines 11-14).

Dependent Claim 3

Claim 3 recites the device of Claim 1 and additionally recites a classification unit (13 of Fig. 1; page 4, lines 24-25) for running the classification process for classifying messages to be output.

Dependent Claim 11

Claim 11 recites the method of Claim 10 wherein the message is classified (step 250 of Fig. 2) according to confidentiality classification levels (page 6, lines 1-2).

Dependent Claim 18

Claim 18 recites the program storage device of Claim 17 wherein the message is classified (step 250 of Fig. 2) according to confidentiality classification levels (page 6, lines 1-2).

Dependent Claim 8

Claim 8 recites the device of claim 1 further comprising an identification unit (ID Unit 7 of Fig. 1 and page 10, lines 24-25) for identifying available connected message rendering output units and for making said control unit determine only one or more of said identified available message rendering output units for message routing (page 10, lines 27-28).

Dependent Claim 16

Claim 16 recites the method of Claim 10 wherein the availability of message rendering output units is checked (step 150 of Fig. 2 and page 11, line 14), and wherein only one or more of the available message rendering output units can be determined for message routing (page 11, lines 15-16).

Dependent Claim 19

Claim 19 recites the program storage device of Claim 17 wherein the availability of message rendering output units is checked (step 150 of Fig. 2 and page 11, line 14), and wherein only one or more of the available message rendering output units can be determined for message routing (page 11, lines 15-16).

VI. GROUND OF REJECTION TO BE REVIEWED

The grounds of rejection to be reviewed from the Final Office Action included the following:

-Claims 1-3, 8-11 and 16-19 have been rejected under 35 USC 103(a) as being unpatentable over U.S. Patent Publication 20020013852 Al of Janik (hereinafter "Janik") in view of U.S. Patent Publication 20030236917 Al of Gibbs et al (hereinafter "Gibbs") and further in view of U.S. Patent Publication 20020169888 of Nabkel et al (hereinafter "Nabkel").

VII. ARGUMENT

Claims 1, 10 and 17

35 USC 103(a) as unpatentable over Janik in view of Gibbs and Nabkel

Independent Claims 1, 10 and 17 have been rejected as unpatentable over Janik in view of Gibbs and Nabkel. The present invention provides an electronic device and device method for analyzing incoming messages, classifying the incoming messages based on the analysis, and routing the incoming messages to output units based on the message classifying. The classifying is done dynamically and is not based on any pre-determined message classification(s). The

classifying is based on at least one of message content analysis, presentability, sender and confidentiality level. The independent claims expressly recite routing based on message analysis and dynamic classification.

The Janik patent publication teaches a system and method for providing content to a user based on user preferences. All content in the Janik system "is arranged for delivery...(with) graphical icons...content objects 20, that exist on content selection web page 22, to be dragged and dropped onto content editors on a PC 34" (see: page 5, paragraph [0074]). All content is, therefore, associated with pre-determined content classes and is tagged with content objects. A user inputs preferences regarding predetermined content types to a web-based system and "only content objects 20 that relate to the selected content types are displayed to the user" (see: page 6, paragraph [0082]). When a user wants to download content, the user drags and drops the content objects onto content editors on the user's Thereafter, the core module at the user's PC manages the downloading and delivery of the selected, pre-classified content. Core module features are detailed in Janik at paragraphs [0096]-[0114] and include retrieval, caching,

clocking and serving; but do not include any analysis of message content.

Appellants respectfully assert that Janik does not teach or suggest an electronic device having a plurality of interfaces for connecting message rendering output units to the device. Janik clearly shows a single network interface (50 of Fig. 1). Further, Janik does not teach or suggest a control unit for controlling the routing of messages based on results of an automatic and dynamic message classification process based on at least one of message content analysis, presentability, sender and confidentiality level. The Janik System Control Application (18 of Fig. 1) routes message based on pre-defined, user-selected content Moreover, the user selects the output device objects. (paragraph 0159) and the content is "sent automatically to the playback device" (paragraph 0165). Janik neither teaches nor suggests the System Control Application "determining at least one of said output units for routing a message to based on a result of a message classification result, and routing said message to that interface serving said determined output unit" as concluded by the Examiner on page 4 of the Final Office Action. Under the Janik teachings, the user selects the output device and the System

Control Application 18 sends the user-selected content to the user-selected playback device via the single Janik interface 50.

The Examiner has acknowledged that "Janik fails to disclose an electronic device, comprising a plurality of interfaces and a message classification process comprising analysis of messages and dynamic configuration of messages based on at least one of message content analysis, presentability, sender and confidentiality level" (emphasis added). Appellants respectfully contend that the Examiner has erred in interpreting the language of the claims at issue, since none of the pending claims recite "dynamic configuration of messages". The final rejection should be overturned due to the Examiner's error in reading the language of the claims at issue.

In acknowledging that the Janik patent publication does not teach all of the claims limitations, the Examiner has concluded that the Gibbs patent publication discloses a plurality of interfaces, quoting the Gibbs Abstract which states that a "content analyzer receives and analyzes content to be rendered at a plurality of recipient devices against display capabilities of the respective devices".

Appellants acknowledge that the Gibbs Abstract includes the foregoing statement. However, the statement from the Gibbs Abstract does not teach or suggest a plurality of interfaces for connecting message rendering output units to a device. Further, none of the Gibbs figures or paragraphs disclose a plurality of interfaces.

The Examiner next concludes that Gibbs teaches a method of dynamic classification citing paragraph 0024. that paragraph, Gibbs expressly teaches "a content analyzer 130 that analyzes the content with respect to device capabilities". The content analyzer of Gibbs does not perform dynamic classification of messages. What the content analyzer of Gibbs does is determine the size of the content to be rendered (paragraph 0048) as it compares to the page size of the recipient device (paragraph 0052). The Gibbs system re-paginates content to fit the available page size of the rendering device. The Gibbs content analyzer also looks to see if the content developer included any controls, tags or other static content indicators (paragraphs 0040, 0043 and 0055) which would affect whether specific content can be re-paginated. If the content includes graphics (as indicated by developer-input tags), the Gibbs system will eliminate the graphics if the

recipient device cannot display graphics. Gibbs does not dynamically classify messages. Rather, Gibbs looks at content size and developer notations and/or tags.

The Gibbs patent teaches "a system and methodology that provides for adjusting content that is to be received and displayed by a device so that the content is meaningful to the recipient" [0005] (emphasis added). Gibbs does not teach or suggest that messages are routed based on message classification. Rather, messages are modified based on the capabilities of the intended recipient device and then The routed to the intended recipient device. modification of messages is limited by content provider constraints on the adjustment of content [0006]. In all of the Gibbs teachings, a message is never re-routed. message is sent to the intended recipient device, although the content of that message may be altered based on the capabilities of the intended recipient device and the constraints established by the content provider/developer.

The Examiner has quoted paragraph 0024 of Gibbs which states that "the content analyzer 130 can employ a content classifier 132". As set forth in paragraphs 0024 and 0025, classifying may be done using an SVM method, Bayesian

networks, or other classifier models. In paragraph 0025, Gibbs expressly teaches that a "classifier is a function that maps an input attribute vector...to a confidence that the input belongs to a class...for example important versus non-important content". By "classification", Gibbs' content analyzer is determining whether content is static content or modifiable content, based on developer tags or notations. Gibbs is not teaching that messages be dynamically classified for routing to a determined message rendering output unit.

Appellants respectfully submit that the Gibbs patent publication does not provide the teachings which are missing from the Janik patent publication. While Gibbs does include a content analyzer, the Gibbs' content analyzer is not classifying a message based on at least one of message content analysis, presentability, sender and confidentiality level. Rather, the Gibbs content analyzer seeks to identify the size, developer restrictions and display components of the message as they relate to the output capabilities of the intended recipient device. Accordingly, Gibbs determining if the message has a graphic component (e.g., a picture of an automobile, paragraph [0057]) or an audio component, etc. and then checks the Device Capabilities

Store to determine if the intended recipient device has the corresponding output capability. If not, then the Gibbs' Content Control System 102 removes the message component (e.q., the graphic or audio) from the message prior to sending the message to the intended recipient device. is no teaching or suggestion in Gibbs that a preferred unit be determined based on dynamic re-routed to classification or that a message be determined preferred output unit for maximal rendering rather than being altered. Accordingly, Appellants believe that the Gibbs patent publication does not provide the teachings which are missing from Janik.

The Examiner has acknowledged that "Janik, as modified by Gibbs et al., fails to disclose a method comprising means to automatically determine routing of messages or a method of determining an output unit for rendering a received dynamic message classification." based message on Appellants first note that the foregoing statement by the Examiner directly contradicts the immediately-preceding statement of "determining at least one of said output units for routing a message to based on a result of a message classification result, and routing said message to that interface serving said determined output unit as taught by

Janik". The Examiner has clearly erred in arriving at the contradictory conclusions.

The Examiner newly cited the Nabkel patent publication in the Final Office Action, stating that "Nabkel et al., discloses (sic) a method for dynamically redirecting message attachments between a host system and a mobile data communication device". The only citation from Nabkel is paragraph 0034 which is a general statement:

Disclosed herein is a system and method for dynamic and centralized service providing prioritization based on dynamic classification, registration, integration, and operation plurality of communications services such as one or more telephony, data, and/or video services. This system may be provided across multiple domains and for multiple providers of communications services. The described herein may provide for system integration of profiles (parameters, user screening list, permissions, preferences, dynamic registration of new services, monitoring of state across multiple services, and dynamic service prioritization and directed message distribution to appropriate services.

Appellants respectfully contend that the cited Nabkel passage does not teach or suggest means to automatically determine routing of message or a method of determining an output unit for rendering a received message based on dynamic message classification. Nabkel teaches that Dynamic Service Classification (52 of Fig. 3) is based on predetermined classifications. A "service declares capability sets to ISC" (see: paragraph 0053). service has declared its capability, the system determines the service classification (consulting a table such as is shown in paragraph 0054) and then determines types and order of messages for the service. Alternatively, the service can register (see: Fig. 4b) by expressly listing the messages it requires. Neither the service classification "discovery" process using the table nor the service registration process of Nabkel teach or suggest automatically determine routing of messages or a method of determining an output unit for rendering a received message based on dynamic message classification. Once a Nabkel service is registered for messages, the system maps a Message Registration List to an Event Registration List whereby, upon occurrence of event, the system creates a message that invokes the registered service (paragraph 0049). Messages in the Nabkel

system are not dynamically classified or dynamically routed. Nabkel messages are automatically generated from a set of messages (see: paragraph 0056 "a one-to-one mapping to a specific message for that event") in response to event detection and are sent to the pre-registered service. The "directed message distribution to appropriate services" taught in the cited paragraph 0034 is not the same as or suggestive of automatic message routing based on message classification or determining an output unit for rendering a received message based on dynamic message classification.

For a determination of obviousness, the prior art must teach or suggest all of the claim limitations. "All words in a claim must be considered in judging the patentability of that claim against the prior art" (In re Wilson, 424 F. 2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). If the cited references fail to teach each and every one of the claim limitations, a prima facie case of obviousness has not been established by the Examiner. Accordingly, Appellants conclude that the Examiner has not established a prima facie case of obviousness against the language of Claims 1, 10 and 17 since the combination of Janik, Gibbs and Nabkel does not teach all of the claim features. Accordingly, Appellants request that the rejections be overturned.

Claim 9

35 USC 103(a) as unpatentable over Janik in view of Gibbs and Nabkel

Claim 9 recites the device of Claim 1 as a portable device (page 7, lines 5-8). Appellants rely on the arguments set forth above with respect to the teachings of Janik, Gibbs and Nabkel as they apply to the language of the independent Claim 1, from which Claim 9 depends.

The Examiner states that Janik discloses an electronic device that is portable, citing paragraph 0197. The Janik portable device, webpad 92, is a client device 78 for rendering requested content for user consumption. The portable device claimed in Claim 9 is not the rendering device (e.g., public display 2, headphones 3, or PDA 4 from Fig. 1 of the present application) but is the user device 1 which has the receiving component, plurality of interfaces, and the control unit as set forth in Claim 1. The Examiner has erred in correlating the Janik client content rendering device to the electronic user device of the present invention. Clearly, the rejection should be overturned.

Claims 2, 3, 11 and 18

35 USC 103(a) as unpatentable over Janik in view of Gibbs and Nabkel

Appellants rely on the arguments set forth above with respect to the teachings of Janik, Gibbs and Nabkel as they apply to the language of the independent Claims 1, 10 and 17, from which Claims 2, 3, 11 and 18 respectively depend.

Further, with respect to the language of Claim 2, Appellants respectfully contend that the Janik teachings cited by the Examiner from paragraphs 0077 and 0132 related to storing predefined subclasses of content for user preference selection and playlist creation neither teach nor suggest a stored look-up table having confidentiality classification levels for message rendering output units. The Janik teachings from paragraph 0085 about system parameters and data also do not teach or suggest a stored look-up table having confidentiality classification levels for message rendering output units. The Examiner has additionally cited the Nabkel teachings from paragraph 0112 regarding security authorization to transmit messages. There is nothing in the cited passage that teaches or

suggests a stored look-up table having confidentiality classification levels for message rendering output units.

In response to the rejection of Claims 3, 11 and 18, Appellants contend that none of Janik, Gibbs or Nabkel teaches that a message is classified by a classification unit and that a classification result is provided. uses pre-defined content objects for a user to order content and for the system to retrieve content. None of the Janik activities involve classifying messages, a classification unit or a classification result. The cited Gibbs teachings about a content classifier are, as argued above, directed to a determination of static content versus modifiable content and do not disclose dynamic message classification. cited Nabkel passage from paragraph 0112 states that it may be optional to apply security constraints. The passage neither teaches nor suggests that a message is classified by a classification unit and that a classification result is provided.

Appellants reiterate that, for a determination of obviousness, the prior art must teach or suggest all of the claim limitations (*In re Wilson*, 424 F. 2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). If the cited references fail to teach each and every one of the claim limitations, a

prima facie case of obviousness has not been established by the Examiner. Accordingly, Appellants conclude that the Examiner has not established a prima facie case of obviousness since none of the cited passages from the patent publications teaches or suggests the invention as claimed in Claims 2, 3, 11 and 18. Accordingly, Appellants respectfully request that the rejections be overturned.

Claims 8, 16 and 19

35 USC 103(a) as unpatentable over Janik in view of Gibbs and Nabkel

Appellants rely on the arguments set forth above with respect to the teachings of Janik, Gibbs and Nabkel as they apply to the language of the independent Claims 1, 10 and 17, from which Claims 8, 16 and 19 respectively depend.

With regard to the rejections of Claims 8, 16, and 19, Appellants disagree with the Examiner that Janik as modified by Nabkel teaches "an identification unit for identifying connected output units and for making control unit determine output units for routing message to." Janik teaches, in paragraph 107, that "certain client devices 78 must be connected to the Internet 8 in real time" and that "Core

module 42 acts to connect messages and streams". Establishing connections among entities is not the same as identifying which connected output units are available. Examiner further concludes that Gibbs "discloses a method of identifying recipient devices for content and determining capabilities of said recipient devices." Gibbs has a Device Capabilities Store 152 of Fig. 1 wherein lists of devices and device capabilities (i.e., respective page sizes) are Gibbs neither teaches nor suggests identifying stored. available connected message rendering output units or making the control unit determine only one or more of said identified available message rendering output units for message routing. Gibbs is checking capabilities of a single intended recipient device. Gibbs does not make any determination as to whether that intended recipient device is connected or is available. In contrast, the present invention is identifying a group of available connected output devices from which at least one preferred message rendering output unit can be determined for routing based on automatic dynamic message classification process. Consulting a list of capabilities of a device does not obviate the invention as set forth in Claims 8, 16 and 19. Accordingly, the rejections should be overturned.

CONCLUSION

Appellants respectfully assert that the Examiner has erred in rejecting Claims 1-3, 8-11 and 16-19. Appellants request that the decisions of the Examiner be overturned by the Board and that the claims be passed to issuance.

Respectfully submitted, Bourges-Waldegg, et al

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APPENDIX OF CLAIMS

- 1. An electronic user device, comprising:
- a receiving component for receiving message intended for said user;
- a plurality of interfaces for connecting message rendering output units to said device,
- a control unit for controlling the routing of messages, said messages being determined to be presented to a user of said device via at least one of said message rendering output units, said control unit being configured for:

automatically determining at least one of said message rendering output units for routing a message to based on a results of an automatic message classification process wherein said message classification process comprises analysis of said message and dynamic classification of said message based on at least one of message content analysis, presentability, sender and confidentiality level, and

routing said message to an interface serving said determined message rendering output unit.

- 2. The electronic user device as recited in claim 1, further comprising a stored look-up table with confidentiality classification levels being allocated to message rendering output units.
- 3. The electronic user device as recited in claim 1, further comprising a classification unit for running said classification process for classifying messages to be output.

4-7 (canceled)

- 8. The electronic user device as recited in claim 1, comprising an identification unit for identifying available connected message rendering output units and for making said control unit determine only one or more of said identified available message rendering output units for message routing.
- 9. The electronic user device as recited in claim 1, wherein said electronic device is a portable device.

10. A method for routing an electronic message from an electronic user device to a message rendering output unit, comprising automatically controlled steps of:

automatically determining at least one of several message rendering output units based on a result of a message classification process, wherein said message classification process comprises analysis of said message and dynamic classification of said message based on at least one of message content analysis, presentability, sender and confidentiality level, and initiating said message to be routed to said determined message rendering output unit for presenting said message to said user of said electronic user device.

11. The method as recited in claim 10, wherein said message is classified according to confidentiality classification levels and said classification result is provided.

12-15. (canceled)

- 16. The method as recited in claim 10, wherein the availability of message rendering output units is checked, and wherein only one or more of the available message rendering output units can be determined for message routing.
- 17. A program storage device readable by a digital processing apparatus at an electronic user device and having a program of instructions which are tangibly embodied on the storage device and which are executable by the processing apparatus to perform a method of routing an electronic message received by said electronic user device from the electronic user device to at least one of a plurality of message rendering output units, said method comprising:

automatically determining at least one of said message rendering output units based upon classification process, wherein said message classification process comprises analysis of said message and dynamic classification of said message based on at least one of message content analysis, presentability, sender and confidentiality level, and initiating said message to be routed to said determined message rendering output unit for

presenting said message to a user of said electronic device.

- 18. The program storage device as recited in claim 17, wherein said message is classified according to confidentiality classification levels and said classification result is provided.
- 19. The program storage device as recited in claim 17, wherein the availability of message rendering output units is checked, and wherein only one or more of the available message rendering output units can be determined for message routing.

EVIDENCE APPENDIX

There is no additional evidence for this matter.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.